

Question Bank + Assignment

Q.1 Write short notes on :-

- Types of communication channel.
- Noise temperature, S/N ratio, Noise figure.
- Vestigial side band in TV.
- FM spectrum. (difference between low level & high level modulating ckt)

Q.2 What is the need of modulation?

Q.3 Give brief description regarding types of noise in communication systems.

Q.4 With the help of block diagram & waveforms explain the generation of Double side band Full carrier AM

Q.5 Explain generation of single side Band

Q.6 Derive Friis formula of Noise figure.

Q.7 What do you mean by demodulation?
Explain any one method.

Q.8 If each stage has a gain of 15 dB & noise figure of 20 dB. Find overall noise fig of two stage cascaded amplifier.

Q.9 Find Noise voltage(oms) if B.W = 2 MHz, temp = 26°C & equivalent resistance is 200 Ω at the i/p of receiver's RF amplifier.

Q.10 A. modulating signal $g_m \sin(2\pi \times 10^3 t)$ is used to modulate a carrier signal $g_c \sin(2\pi \times 10^4 t)$. Find m, B.W. freq of side band components, draw spectrum

Q.11 Calculate P_t & I_t of AMDSB FC for $P_c = 1 \text{ kW}$, $I_c = 1 \text{ mA}$ & $m = 0.5\%$.